



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

December 6, 2022

Mr. Joshua Nandi
Northrop Grumman Systems Corporation
One Space Park Mail Stop: NGC CER-XE6D21
Redondo Beach, CA 90278

SENT VIA EMAIL

Re: Northrop Grumman Vapor Intrusion Work Plan Addendum #3. Former TRW Microwave Site, 825 Stewart Dr., Sunnyvale, California, TRW Microwave Superfund Site (CERCLIS ID# CAD009159088)

Dear Mr. Nandi:

Thank you for submitting the Northrop Grumman Systems Corporation (Northrop Grumman) Vapor Intrusion Work Plan Addendum #3. ~~EPA will not approve the Addendum is not approved at this time.~~ EPA requests the Addendum ~~text~~ be revised to improve its readability and to ~~address include the~~ following ~~several technical comments tasks as discussed below~~:

1. Edit the ~~Addendum's~~ main text to include a summary description of the standard operation procedures (SOP) for the activities to be performed (e.g., soil gas installation and sampling, indoor/outdoor air sampling, differential pressure monitoring) and ~~include attach~~ the SOPs as ~~attachments~~ (or clearly reference the SOP location in the document).
2. Include an ~~SOP-standard operating procedures~~ for differential pressure monitoring and describe the associated QA/QC criteria. The monitoring should be performed over a period of ~~one~~ week and measurements recorded every ~~five minutes~~ 5 min.
- 2.3. Add Table 4 is missing the laboratory reporting limits to Table 1.
4. Include a footnote in Table 1 to indicate that EPA will ~~be immediately be notified immediately~~ if indoor air results for TCE are above the accelerated response value of $7 \mu\text{g}/\text{m}^3$ for commercial/industrial exposure and appropriate actions will be taken to confirm the results and ~~implement mitigation measures~~ it.
- 3-5. Include a ~~table~~ (Table 2) for soil gas screening levels and laboratory reporting limits. ~~Use~~ Table 1 should present indoor air screening levels for long term exposure divided by the attenuation factor of 0.03.

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6. Include a summary of the QA/QC metrics (e.g., QA/QC criteria for duplicated samples).

4.7. Include additional long-term (~~seven~~7 days) indoor air sampling using passive samplers in four locations (IA-2, IA-3, IA-4, IA-7). Include one long-term outdoor air sampling. Include a summary and SOP for the passive sampling.

8. Include one additional sub-slab sampling location (SS-12) for spatial coverage as indicated in the figure attached.

5.9. Move sampling location IA-2 to ~~the cubicles next to~~by the side of SS-7 (pending building walk through).

10. Provide the sequence of activities. EPA recommends the following sequence:

1. Day ~~Z~~zero: ~~B~~uilding walk through, check sub-slab ports and install SS-12
2. Day 1: ~~S~~start of sampling
 - a. ~~B~~egin~~start~~ differential pressure monitoring at tree sub-slab ports SS-2, SS-7 and SS-10
 - b. ~~S~~start long-term passive indoor air sampling at four locations IA-2, IA-3, IA-4, and IA-7; and one out door location at HVAC intake.
3. Day 2: ~~O~~ne week after start of sampling on ~~D~~day 1
 - a. Start the 10-~~hour~~ indoor air sampling with SUMMA™ canisters in all indoor air locations (IA-1 to IA-9), and one outdoor location at HVAC intake
 - b. Stop and remove the differential pressure monitoring from sub-slab ports
 - c. Perform the sub-slab sampling in all sub-slab locations

11. Include a statement that after data collection is completed and reviewed and approved by EPA ~~and upon EPA approval~~ the sub-slab ports will be decommissioned.

12. Include a statement ~~indicating that~~ a report will be submitted to EPA within 30 days of receipt of ~~the results are provided from~~by the laboratory.

EPA requests that Northrop Grumman provide a ~~R~~evised ~~W~~ork ~~P~~lan ~~A~~ddendum within 30-days from the receipt of this letter. Please feel free to contact me anytime at [HYPERLINK "mailto:abreu.lilian@epa.gov"] or 415-972-3010 if you have any questions or comments.

Sincerely,

Lilian Abreu, PhD
Remedial Project Manager
Superfund and Emergency Management Division

cc: Holly Holbrook, AECOM

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